

W4

The Lumbermen's Obligation to the South

LEGISLATIVE
REFERENCE
DIVISION

MAY 17 1918

BY

O. H. L. WERNICKE



Distributed By

Department of

Cut-Over Land Utilization

Southern Pine Association

New Orleans, La.

By Transfer
Nov 5 1923

S 445
W 4

FOREWORD.

O. H. L. WERNICKE,

**Inventor, Organizer of Industries and
Booster of Social Progress.**

HIS home is in Grand Rapids, Michigan, but he is also Vice-President of the Pensacola Tar & Turpentine Co., Gulf Point, Florida, and spends much of his time in the South.

He has had ten years of practical experience in agricultural pursuits, forestry, and care of domestic animals under the direction of his father, who graduated from a leading agricultural school in Europe; and for many years was engaged in the production and sale of agricultural machinery, which required intimate personal relations with farmers, throughout the Union and in some foreign lands.

Mr. Wernicke has had twenty years experience as a manufacturer of wood, metal and paper products, and for fifteen years has been interested in the distillation of wood for pine products and charcoal.

Incidental to these major activities, he has devised numerous systems and business methods now generally accepted as standard the world over. He was the originator of sectional bookcases and a pioneer in the exploitation of sectional furniture construction throughout the industrial world.

Many other achievements, discoveries and inventions are credited to his activity, including improvements in gasoline engines, air compressors, pneumatic wheels, lubricating devices, lumber driers, fire resisting insulating materials for safes, and the like.

Mr. Wernicke is a timber owner and a practical logger; he has had wide experience in organizing industrial and other enterprises, and his many business relations have also embraced banking, advertising, merchandising, and in-

dustrial and mechanical engineering. He is a member of the American Society of Mechanical Engineers. The Federal Government frequently consults him on matters pertaining to the treatment of lumber for given purposes and in standardizing the Government's office equipment.

In a political way Mr. Wernicke was at one time appointed head of the Michigan prisons. During his six years in office he initiated the legislative and practical reforms which resulted in the turning of huge annual deficits into profits, and the taking of a large percentage of prison inmates from behind the bars and placing them as honor men on state account farms or in numerous other industries, such as brick and tile making, canning food, the reclamation of waste lands, animal husbandry, etc.

He laughingly admits that he is visionary and an optimist, but rejoices over the fact that some of his dreams have come true. His activities have been responsible for many successful enterprises, some of which bear his name, and give employment to many thousands where no jobs were to be had before. The established or safe and conventional grooves of industrial life have held no appeal for him. His is the pioneering type of mind and a personality which delights in the doing of things "that can't be done".

Mr. Wernicke knows the South. He understands its problems and appreciates the difficulties which retard its greatest development. His intimates among its lumbermen and its other industries are numbered by hundreds. His personal knowledge of Southern conditions has been acquired on the spot and goes well back into the preceding century.

Mr. Wernicke is now 56 years old. He tips "six foot one" and the chap who keeps up with "Dad's" 250 pounds of bone and muscle on a tramp through the woods will enjoy his supper.

He in no uncertain terms defines what he believes to be the Southern Pine Lumbermen's obligation to the South. Some will agree and others disagree with his views that the lumbermen are in duty bound with their own capital

to pursue agriculture in any of its branches, primarily the raising of food and cloth-producing animals. Others of his views will undoubtedly differ from some preconceptions.

In the nature of things no public utterance could be excepted from the inexorable law of divergent individual opinions. Be that as it may, his message has a punch; he has himself "done things" and we welcome this opportunity to present his ideas to the reader, as it is our purpose to collaborate and make of record the views of thinking men who are studying our problem.

Department of Cut-Over Land Utilization,

SOUTHERN PINE ASSOCIATION.

Let's Journey Through Cut-Over Land.

I do not mean your little patch of ten, fifty or a hundred thousand acres. You have been over parts of that before and when you had your map along you could generally tell in what direction home was located and how many hours it would take to get back. That is not the kind of journey I have in mind. I have seen a great many of these little individual patches and am losing interest in them. When I was younger our hundred acre farm looked big to me, but, when I came back home from the corn fields of Kansas and the wheat farms of Dakota where as many as fifty self-binders could be counted at work in a single field, that little old stumpy Wisconsin farm of ours had shrunken so I could hardly see it, so it seemed to me, but what had really happened was that my vision had expanded or had changed places. I no longer viewed the world as a fringe to that farm but looked upon it in its true proportions, as a mere speck on the universe.

And now, if you will get ready and take a little run with me over two hundred million acres of idle land, most of it cut-over, I feel tolerably certain when we get back that your own little "steen" thousand acre tract won't look nearly so big to you as it did, and I'm thinking it won't look so big, either, that you'd be afraid to wrestle with it alone.

ON FOOT?

Let me see! Well, to go over this two hundred million acre tract we ought really to cross each section once anyway, so let us put them all in a row first; it will be easier to find our way about and will avoid duplication. We are going on foot because we can see more of the country that way, but it will be necessary to have a snack to eat and something to drink on the way. We were to cross each section once, and there are 312,500 sections in two hundred million acres; that means an equal number of miles to be traveled; and we were going to walk,

but I find that by making a 20-mile hike every day for 365 days, it will be forty-three years before we get back home, and something might happen in the mean time that we'd hate to miss.

IN AN AUTO?

Let us go in a Ford. That will let us cover a hundred sections a day instead of twenty, and get us home after eight years and seven months, if we don't have too much tire trouble.

We will take some spare tires along. They say one set of tires, with luck, is good for 5,000 miles, so we will need 250 spares to do the trick, but if they weigh ten pounds each we can't well carry the load and there is the question of grub for the journey—we'll say two pounds a day per person—that makes 12,500 pounds for the trip, besides the ton or more of spare tires.

It doesn't seem to work our right that way, and we must carry water, too, and there might be trouble in finding gas and oil along the way, so on further consideration let's make the trip by aircraft. That's the lastest word for getting over fast and then, too, it will afford us a better view of things and the ferry tolls will be avoided, which foot up when you go by auto. It cost be \$27.00 ferry toll in the short, trip from Pensacola to New Orleans last year. That trip only took two days and I shudder to think of keeping up such a clip for nearly nine years. Nothing doing! It would beggar Sam Jones and pay for half a dozen air ships, so it's decided that we are going land looking by aero. That's the only way, anyhow, where time is money.

BY AEROPLANE?

Now, this air thing, they say, can do an average of a hundred miles an hour, so we'll soon be back if we do ten hours day—that's a thousand miles—and if we take an early start on the morning of February the thirteenth, barring accidents we shall be back by Christmas eve—that'll be going some! But they do say that airplanes are really quite reliable now compared to what they were before the war.

The idea of getting back for Christmas makes a hit with me for we will need a little rest after

flying 312 days, but we haven't finished. While we were on this little journey, so our friend Mr. A. G. T. Moore, Director of Cut-Over Land Utilization, Southern Pine Association, says, some one has been real busy logging and thereby adding 81 miles a day to the long end of the road. This makes 25,000 miles more to go—the same as once around the earth—so we go on another 25-day air trip after the holidays.

?

But this thing is getting on my nerves. Where will it end. For, while taking that little twenty-five thousand mile air ride, going nearly two miles a minute, still another strip is added as long as from New Orleans to 'Frisco. This isn't much, and having been over 'Frisco thirteen times on the other two trips we will let this little end piece go now and watch the logging. We can't walk eighty miles a day but we can take the auto now. We have not yet seen all the cut-over land, because it grows so fast, but we have seen enough to realize that there is quite a lot of it besides the little patch we live on.

The situation reminds us of old H. K. Twofist, who made "his pile" in Colorado, and his son, John. John had been to college and abroad, and in the course of time concluded to go into business and settle down. This pleased old H. K., who asked: "Say, John, how much money do you want for this thing." "Oh, a million dollars will do, Dad." "What. A M-M-M-Mil--lion DOLLARS !! Why, John, that's a hell of a lot of money." "Oh, no, Dad, it isn't so much, if you say it quick like they do in Wall Street." We have so long been accustomed to speak of cut-over lands in terms of so many million acres, and to say it "so quick", that our sense of proportions needs readjustment.

WILDERNESS COMPOUNDED ANNUALLY.

Let us get this thing down to realities. We can manage if we will forget for the time all the cut-over land except that part of it which current logging adds to the total. This little annual addition is big enough to begin on and

when we have that problem settled it will help a lot in dealing with the main issue.

So in order to plan out the uses for this annual contribution, said to be about fifteen million acres, we will cut it up into squares or strips of a million each. This, then, gives us fifteen such parcels, each forty miles square, or fifteen strips one mile wide and sixteen hundred miles long. It doesn't seem now as if it would be difficult to manage these little parcels, does it.

To begin with, there is the soldier and sailor colonization scheme. It is only an idea as yet, but a good one if it works out in practice the way it looks on paper. Let us assume that it will, and that along with swamp and other available lands it will dispose of one of the fifteen squares or strips of cut-over land each year. That leaves only fourteen more to be cared for in some other way.

Now, let us also assume, because it is not a known factor, that the ordinary course of immigration and drift from other vocations will dispose of another such parcel. That will leave but thirteen. But as many of our land owners are doing something themselves in the way of using the land let us put that down for another parcel, and we have only twelve left.

The railroads, too, are interested in settlers and herds for these lands and may be depended upon to do something, so let us meet this prospect with another parcel, and that leaves eleven.

PRINCIPAL REMAINS INTACT.

The several states and local communities are interested and the result of this force may dispose of another parcel, leaving but ten, but just what to do with the remainder before the year is up so we can begin over with the next contribution, which mean while accumulates, presents a problem that bothers me. I suspect that we need guns of longer range, larger caliber and greater power before we may hope to overcome the odds against us in this situation.

To clear all this land as we go is out of the question, for even if we have the two hundred and sixty odd million dollars annually required to pay for the labor we couldn't obtain or

care for the half-million laborers required to do the work. It has taken fifty years to put six million inhabitants on the soil and in the towns of Iowa, Kansas and Nebraska where the land is richer and did not require clearing. The settlement of these states occurred at a time when great waves of land hungry human tides were moving westward over the face of the earth. To expect anything like it to happen with our cut-over land situation is a delusion; meanwhile taxes are mounting higher while public improvements lag.

Five million acres divided into 100-acre tracts, gives us 50,000 home units. Assuming that a desirable settler's family represents four persons, and that half the influx thus set in motion will drift to our towns and cities, the plans mentioned would add from three to four hundred thousand souls to the population of the South. This is beyond all precedent. No new country ever experienced such a rate of immigration for a protracted period; and where are all these people to be had or what shall cause them to leave other homes and come South?

THE LAND OWNER'S OBLIGATION.

The sheep and the swine, the cattle and goats which can supply the only sure solution must be had in sufficient numbers so that their increase may populate the total available area within a period of ten or fifteen years. This our land-owners can do, must do, and will do because there is no one else in sight who is willing or able enough to do it for them. The landowners alone have the incentive, also the resources and the business capacity, to set in motion and direct the forces which shall mark a turn in the tide, if it is to be done in the present generation.

OPPORTUNITY AND ORGANIZATION.

*"Give me men to match my mountains;
Give me men to match my plains;
Give me men with empires in their purpose
And new eras in their brains."*

The sentiment, and the spirit portrayed in these lines borrowed from a Fourth of July oration delivered by Sam Walter Foss, accu-

rately echo the challenge to combat which the cut-over land situation hurls at the Southern lumbermen. It cries for men "with empires in their purpose and new eras in their brains". It has no place for those whose wish-bones occupy the place where their back-bone ought to be. It is the clarion call of the bugle for men who dare to venture upon the waste places of the earth with a spirit that defies all obstacles and sponges the word "defeat" from its lexicon.

We hear the challenge and we have the men for whom victory will be history's answer when they have been aroused by a clearer view and greater appreciation of the scope of the task, and who, because of its magnitude, will find therein a zest for the game. There is about as much chance of getting into heaven by your wife's religion, as in settling this cut-over land situation by sending the boy to mill. The only way to do anything is to act in the right way and it will be my purpose here to assist in clarifying the situation in such manner as to bring our own latent forces into action.

Your Cut-Over Land Department is a fine thing and marks a logical beginning on the task before you. It has done and is doing a big work which could not be so well done by individuals, but it will not and can not do everything, and without the support resulting from individual achievement the department would resemble a single track railway without terminal facilities. It is your clearing house for information and ideas; it can determine and promote desirable legislation and foster a favorable public sentiment. All this it may do, and more. Organized activity along the lines which the Department has pursued is one of the big helps in the several forces which must work together to build the "new era" of our desires.

The Cut-Over Land Department must be given the means and authority to command the services of able men on the major problems affecting the profitable use of the idle land. Their skill and potential value should in turn be directed by a practical administrator. That is about as far as the Department can go with advantage at this stage of the situation, and anything less than that will not, as I firmly

believe, produce the desired results. While the cost of such an organization may seem large in its aggregated sums, it will be found that the unit of expense per member or acre when compared with the returns will have been small and a very profitable investment as well.

In order to justify any form of organization supported by your association, its efforts must result in the actual and profitable use of the lands at a rate and in such a way as will constitute a successful demonstration of their worth. Only by such measures may the public's interest be enlisted sufficiently to insure the good use of all this land within a reasonable period of time, from the standpoint of the private and public interests now concerned. Anything less than that involves the risk of adding further disappointments to the sum of past experiences,

The success of any great undertaking must of necessity be founded on possible achievements and not upon illusory hopes. and our efforts must be guided by such facts as history, experience and good sense confirm. Other hopes and wishes must be put aside.

With the foregoing principles in mind, I shall endeavor to clarify the present cut-over land situation by subjecting to a logical analysis some of the thoughts in the minds of the land-owners which are receiving more or less publicity, and to indicate measures in support of a definite policy of action.

PRO BONO PUBLICO.

To them that hath is. (Old version).

They who hath must help they who hath not. (New version).

The facts and fancies that have been contributed to the subject in times past, have not as yet produced that degree of initiative which rests upon confidence, nor do they seem to inspire decisive actions on the part of those whose presence is a reality right here and now and who possess both the means and the ability to do the vital things that change dreams into facts. During the pioneer days of America, it was every man for himself and the Devil take the hindmost. The public weal was lost to view

in the struggle for individual existence. This spirit, born of earlier necessity, still pervades our businessmen, but times have changed and under present day conditions self-sufficiency is no longer permissible. We have come upon times when private advantage cannot be so well pursued or so easily attained with contempt of public opinion and a disregard of communal prosperity.

SKELETONS OF THE PAST.

The expanding area of Southern cut-over pine land is a stubborn fact, not a theory, and until the daily expansion from logging operations is met or stopped no adequate beginning will have been made to rescue these lands from a state of idleness. The one big fact that sticks out all over this problem is the comparative failure, despite all past efforts during a quarter of a century or more, to utilize the generality of these lands for small farming purpose by attracting and holding settlers. The causes which underlie this situation are more generally understood than admitted; its proven undesirability for small farms, by no means condemns the land as valueless for other equally important uses, but it clearly shows that the further effort of the owners must be expended in ways that are more in keeping with its potential utility.

In this respect the teachings of history are too plain and convincing to admit of denial or doubt. Evidence of sporadic results here or there is not wanting, of course, but no adequate, useful purpose can be realized by hiding or minimizing any negative feature with the hope that it may fool someone else. Where this has been tried, it has hurt all concerned.

Such lessons, however, are valuable if we heed their teachings and change the angle of our desires towards the attainable and away from the "gold at the end of the rainbow". Enough is now known regarding the desirable and profitable uses to which cut-over land lends itself to warrant a serious beginning of its proper use by its owners and without waiting for something or other to happen whereby the task may be shifted on to other shoulders. The right start of this vast work waits upon nothing more difficult than an

"attitude of mind" which recognizes the necessity of convincing others by showing results. Whatever else a people may desire, they must have food and clothing, and never before in the history of all mankind has this fact been more forcibly emphasized and acknowledged as now; nor has the opportunity for profit by turning an empire of idle land into productive channels been so good; and it may never become more urgent or inviting than at this time.

PROMISES AND PIE CRUST.

Two years have elapsed since the New Orleans meeting was held, at which all this was foreseen, met with patriotic promises and numerous able contributions, and encouraging responses were then and there recorded. It was declared that the "new era has dawned". The great war has come, and is now almost a thing of the past. The needs of the human race as there emphasized have since been multiplied in their intensity, but the opportunity for contributing generously to these needs by putting the land to some use was soon forgotten. I relate this instance not in a spirit of carping criticism but with a desire to prove that the attitude of mind which has so long obsessed the land owners is not a consistent one and contains no assurance of future success. This "mental state" may be changed into action by a candid and logical presentation of the vital factors involved in the situation, and though my opinions as herein expressed may not prove sufficiently convincing to produce immediate results, it is to be hoped that they will cause some readers to think and act on lines which will not fail to "remove the fly from the ointment".

Crust and Filler=Complete Pie.

Promises and Action=Achievement.

Such pride of personal opinion as I may have, suffers not at all by adopting a better course when it has been developed by an exchange of views. It is not my purpose here to offer a specific, but rather to arouse the latent forces in others, who are more capable of dealing with this situation than any single individual. Likewise, I trust that what I may say will not be

misconstrued as lacking in harmony with the policies of your organization, because policies change with added understanding of conditions, and are of necessity unstable. The purpose which I have in mind is in its essence the same as the purpose of those landowners who are cooperating through their association, and that is, the use of the land which lies idle and is a liability of the owners as well as of the entire country.

The plea that lumbermen are not farmers is invalid and unworthy of utterance by businessmen. Time was when they were not lumbermen, and when the timber is gone they will cease to be lumbermen. If he will, a businessman may be anything which his opportunity and his self-interest requires. As an inevitable sequence of the lumbering operations and as a vital economic factor incidental thereto, the cut-over land is a feature which intrudes itself into the business of lumbering, and so long as its potential utility is ignored it presents a wasteful liability. Most of our great enterprises owe their success to the recovery of by-products which required the aid and understanding of arts quite foreign to the technique of the original venture. The lumbering business is not exceptional in this respect; on the contrary, the saving of various by-products from its mills and its forests are proven necessities and accomplished facts, but the one great by-product permanent in character and indestructible in its nature is the cut-over land. It alone supplies the answer to the oft repeated query: "After the lumbermen, what?"

The land is here; it is a condition; so is the lumberman or ex-lumberman who owns the land. It requires tremendous resources and exceptional business ability to bring all these vast areas under production. The indispensable resources of capital, energy and business ability requisite to the task are all at hand and require only to be mobilized. Moreover, these essentials are not presently to be obtained elsewhere in adequate measure, thus leaving the owners face to face with the naked fact that no solution of the major problem will unfold to bring in desirable outsiders in sufficient numbers until the certainty of "pay dirt" and methods of

getting it have been convincingly demonstrated. This thing is our own baby and is entitled to the best of growing up that we can give it.

REFORESTATION.

I am quite in accord with the views presented in the address of Mr. H. T. Cory, Consulting Engineer, United States Reclamation Service, Department of the Interior, "Forestry vs. Agriculture", (pages 6-7). The Federal or State Governments must take title to the lands and assume supervision over reforestation work for the benefit of future generations. Private enterprise does not meet the requirements of this situation and can do little more than encourage Federal and State activities along these lines. To an appreciable extent cut-over lands reforest themselves and such areas should be defined, protected and exempted from all taxes until they may be incorporated in the National or State Forest Reserve.

The lumbermen are so conversant with this phase of our problem that extended remarks here would be without purpose. I only wish to suggest that all owners of cut-over lands may add to their value and attractiveness for future use, whether by themselves or other persons, if ten acres on each quarter section be fenced and reforested. The aggregate of such wood lots would be large enough to exert a favorable influence on the climate, provide shade, fuel, building material, etc. Such reforestation would in other ways contribute greatly to the value and desirability of the remaining lands for grazing or other purposes.

CONSERVATION.

Land Clearing and Value of Stumps.

The very intimate relations which I have maintained with the pinewood Distillation Industry and other similar by-product recovery methods during the past twenty years, and my practical experience gained from the successful conduct of such an enterprise, which claims the distinction of being—with one single exception—the oldest in point of continuous operation among a few remaining survivors, enable me, so I

believe, to speak with convincing authority on such matters.

The recovery of turpentine and other valuable products from "mill waste" has been a complete failure, as many lumbermen know from costly experience, because such material does not yield enough product to pay for the cost of its recovery. This fact has been established by hundreds of experiments conducted at a cost which represents a sum so huge in the aggregate as to discourage further attempts in this direction.

Some measure of success has been achieved by utilizing the top wood, limbs and small timber for pulp or box-board stock when taken out coincident with logging operations, and in such circumstances the mill waste has a value as fuel, and a portion of the slabs make pulp. An operation of this nature involves equipment, the first cost of which is so great as to require separate capital and special corporate organization apart from the lumbering business. I may say, however, that this industry is one of great promise for the South. The raw material is here in great abundance and there is an ever increasing demand for paper and other products composed largely of wood fibre, but the industry does not now lend itself to a utilization of material from old cut-over lands and so long as logging operations continue the material thus made available which is not suitable for lumber may be brought to the pulp mill in adequate supply at a very low cost. In consequence, unless a process is used whereby the resinous products contained in the fat wood from cut-over lands may be separated and recovered as well as the pulp, there is no possibility of deriving revenue from such lands by making pulp wood, for the cost of labor and transportation alone is prohibitive.

Another process, known as "extraction", whereby fat wood from cut-over land is hogged and finely shredded and then soaked in a solvent (such as gasoline) to dissolve the resinous contents, has of late years attracted renewed attention. The products obtained by the extraction process consist of turpentine, pine oil, and rosin. The power necessary to decimate

the wood and carry on the leaching distilling, and refining processes, together with other capacious equipment, all require large capital and centralized operations. The process is a technical one beyond the comprehension of those without experience in chemistry and engineering. There is now but one concern in successful operation. Another is passing through its third receivership in five years, and several new ventures are under contemplation. Like the history of steaming turpentine from mill waste, considerable sums of money have been sunk in such plants. The major product being rosin, the wide market for this material presents a powerful argument in favor of the process.

The more conventional conversion of fat wood is called Destructive Distillation. It consists of heating the wood in retorts and collecting the crude products of decomposition through water-cooled condensers. The residuum from the retorts is charcoal, while the condensed liquor contains a variety of chemicals, including tar, turpentine and pine oil. For purposes of destructive distillation the wood must be "fat" and should be smooth enough to pack closely in the retorts. Ordinary cordwood is a desirable form for the purpose.

The D. D. process (by which abbreviation the destructive distillation system is commonly known) provides an ideal method for converting fat pine when and while there is no competition, because the very limited demand for such products, and especially the pine tar, which represents seventy per cent of the crude oils so obtained, has restricted the development of this industry to a dozen small plants, of which four only have earned a fair interest on the money invested. Only four of these plants have a record of operating for five consecutive years in a condition of financial health.

Destructive distillation is very old, but its limitations are not widely understood and this fact has enabled the promoter with a "new process" to charm real money out of the pockets of the credulous sucker to an extent and with a recurring persistence which is truly amazing. The fair inventory value of all the fat pine D. D. plants now in successful operation does not

exceed one million dollars, and at average prices the total products from all the going plants does not exceed two and one half million dollars annually, which includes exports.

The annual production of retort or D. D. pine tar varies from thirty-five to sixty thousand barrels per year. To this must be added the yearly production of the old-fashioned pine tar, varying from fifteen to forty-five thousand barrels; this tar is made in the woods by burning fat pine wood under dirt-covered kilns and is generally described as "country tar" in the markets. Owing to the manner of its production this country tar inevitably contains water and dirt ranging from 15 to 35% of its volume, and its constants are necessarily lacking in uniformity, which results in wide discrimination as to prices.

The total demand for pine tar of both kinds fluctuates from a minimum of fifty thousand to a maximum of one hundred thousand barrels a year, making an average of seventy-five thousand. Therefore, whenever the production exceeds the average requirements the prices slump to unprofitable figures and at other times they slump because some one needs the money, or has tar in leaky packages, or for no apparent reason whatever. New and greater uses for pine tar have not responded with encouraging results to the constant efforts of the producers, and until this condition can be surmounted a further expansion of productive facilities must result disastrously to investors in this industry.

The average yield of tar by D. D. processes amounts to about 50 gallons (or one barrel) from the cord of wood. It is clear, therefore, that 75,000 cords of tar wood supplies the annual requirements. Taking Mr. Moore's figures of "51,600 acres per day" at which the cut-over area is increasing, the total annual pine tar supply is obtainable from the wood off land denuded by logging operations every forty-eight hours, provided that all cut-over land produced three-quarters of a cord of fat wood per acre, which, unfortunately, is not the case. Thrifty growing timber does not yield tar or turpentine in paying quantities. The stumps and other logging waste from cut-over pine lands require from five to twenty years after

logging to mature fat wood suitable for any recovery process. The wood does not fatten until the sap has rotted off, and then it does not do so uniformly. Savannah or flat lands are more favorable for good fat wood than the rolling or higher lands, and the stumps generally contain more resinous material than the top wood but they likewise present difficulties in their removal and conversion which are so great that most of the tar now made is obtained from knots and top wood.

Another problem that presents very serious aspects to all forms of fat wood utilization is transport, both by road and rail. A cord of average fat wood weighs from four to six thousand pounds and the cost of hauling presented by the prevailing average of conditions is anywhere from fifty cents to a dollar and twenty-five cents per cord for each mile, whether it be done by animals, trucks or other equipment, and as the distances from fat wood lands to railway loading points are constantly increasing, and likewise the rail hauls from loading stations to the plants, these features have within the past few years presented alarming problems for solution to those engaged in the pinewood distilling industries, by whatever method it is carried out.

I have presented the facts in sufficient detail to convince most landowners that the sale or conversion of fat wood from cut-over lands is not an alluring prospect, and this is further emphasized by the fact that only a small portion, say one-fifth, of the total area of such lands contain desirable fat wood in sufficient quantity to warrant its recovery; it is also true that only a relatively small percentage of the waste wood and stumps on the better land is suitable for profitable conversion. The incontestable facts which I have here presented utterly demolish the theory so often and glibly expounded by persons possessed of no practical knowledge on the subject "that the tar wood will pay for clearing the land". Barring a few exceptionally favorable tracts and limited areas to be so cleared, the total value of all the fat wood in the field, minus labor and transport, annually required by the several distillation methods now in use

would not average ten cents an acre, or one-half of one per cent of the cost of clearing the land.

As to the advisability of clearing the generality of cut-over lands, I have as yet been unable to find sufficient evidence to encourage a belief either in its possibilities or desirabilities; the exceptions are so rare and rest upon local conditions of soil and other advantages to such an extent that they afford no criterion, but rather serve to confirm my convictions, if such proofs were needed.

I have had no little experience in clearing land, including the removal of stumps by blasting, burning, pulling and otherwise, and the best methods for any given set of conditions involve a big expense for equipment, labor and transportation. So varied are the conditions met with in different localities, or even in the same locality, and so meager or colored with absurdities is the available data respecting such operations that they do not present a helpful basis for estimating the cost of clearing cut-over lands. Some say it is \$10.00 per acre; others, \$25.00, but for the purpose of our mathematics let us assume that the cost of clearing is \$17.50 per acre—though I believe double the amount is nearer the mark. The sporadic examples of cleared lands which here and there attract our attention enliven the wish to see more of it placed in that condition, and this is a result greatly to be desired. Unfortunately, however, it is unattainable for several good and sufficient reasons, which appear with greater distinctness when we turn from the examples cited and view the acreage of cut-over land in its totality.

THE PROBLEM.

Vast, Colossal, Infinite.

I do not know how extensive this area really is and doubt if any one else really knows, but we are agreed that it is vast and is expanding at a tremendous rate from day to day by cutting the timber, by the ravages of fire, the waste of turpentining and through windfalls. Hence, if we place such expansion at fifteen million acres a year, after deducting such as may have been taken for tillage and grazing purposes, it brings the situation near enough to our vision

to show that few of the present generation will live to see even a fair proportion of it so utilized. Mr. Moore says that the cut-over area has grown considerably during the past ten years. This is undoubtedly true and no one assuming to express an authoritative opinion has placed the accumulative acreage under seventy-five million. Many place it at higher figures, and Secretary of the Interior, Lane, in support of his proposed project for placing the returning soldiers on the land, makes the statement that there are at least 200,000,000 acres of cut-over timber lands, all of which can be reclaimed and made available for production. If such an area containing two and one-half million 80-acre farms were put under a state of profitable utilization, it would support an increase in our rural population of ten million souls, an equal number of cattle, half as many draft animals, twice as many hogs, etc. Incidentally, our towns and cities in these circumstances would grow in proportion, making a total increased population of twenty million souls, with an aggregate of taxable wealth beyond computation. And, best of all, this is not a mirage but an attainable reality, worthy of the men with "empires in their purpose and new eras in their brains".

THE LUMBERMEN.

Equal to the Task—If Willing.

The assumption that our lumbermen friends do not possess these attributes is denied by their deeds. Nothing is lacking to set in motion the processes needed to build this empire and inaugurate this era of my prognostications but a shift of mental attitude. I feel it in my bones that we shall do this thing. The task is one which depends on a correct beginning, and by discarding some cherished hopes which for the time being are vain.

We do not require a familiarity with higher mathematics to understand that it would cost \$262,500,000.00 to clear the fifteen million acres represented by the annual expansion of cut-over land areas. Where is this money to come from? If it could be had, could it not be otherwise employed to better advantage?

A mere clearing of the land is but one item. The buildings, fences, tools, drainage, and other indispensable things would treble the figure before we arrive at such details as stock, fertilizer and the like. The cost of clearing adds nothing to the potential value of land unless it is suitable for cultivation with assured returns consistent with those prevailing in other gainful pursuits. If we had the money to clear the land and provide the other improvements, from where and by what methods would we procure the labor to do the work? At current wages to clear the fifteen million acres which are annually added to the cut-over domain would require the work of five hundred thousand laborers. Have I not said enough to show that this problem demands an altogether different postulation, some plan or procedure within our means and which we may set in motion without waiting for a millennium based upon vain hopes and born of desires that cannot be fulfilled? What has been tried and found wanting, together with other methods which upon their face bear the stamp of impracticability, must all go into the discard to clear the deck for the attitude of mind which shall stamp the hallmark of a virile and sane beginning on the face of the existing situation.

IMMIGRATION AND COLONIZATION.

It has long been a sort of Southern fetish to talk of and hope for immigration to turn its tide our way. It is a plausible word and presents alluring prospects, but it has not been realized for perfectly valid and well known reasons, and for the same good reasons it is time that we turn our thoughts to other means for relief. The settlement of the Middle and Western States, to which frequent allusions are made, affords no basis for our hopes. The westward tide not only passed us by but drew into the stream large numbers from the Southern States who are gone never to return until conditions here have been greatly changed for the better. The country no longer receives a large influx of desirable foreign agriculturists with a land hunger centuries old to be satiated for the taking. These richer lands of the Middle West are taken and the tide has changed the direction of its flow towards other lands and

foreign countries which, for the time being, at least, present more inviting conditions. The Southern cut-over lands for general farming purposes are not so good and therefore fail to satisfy the migratory man-animal in his search for a new home, and the social aspects of the South make no compelling appeals to the man who has lived happily and prospered elsewhere.

No, that lane is too narrow; this cut-over land is our own problem. Let us face the truth and solve it at home. It can be done. We possess the means to do it and the fact that there are thorns on the bush makes the game all the more exciting for those who will engage in it with the right spirit, and to such the practical results will not only confirm the wisdom of their course but will bring them the richer reward of deserved achievement, which time does not corrode nor thieves appropriate.

Great movements of peoples from one place to another are caused by unrest and a desire for better living conditions. This situation prevails to a greater extent among the wage earners in the large industrial centers than among those who are engaged in rural pursuits. The former class, even if it could be persuaded to settle on these lands, would prove unfit for the task, which could only result in making a bad situation worse. Until the South can match the superior advantages and greater social attractions which make for success and contentment elsewhere, it will do well to keep the labor it now has. Our immediate concern, therefore, is to keep what we have and raise more by improving the conditions under which people may more easily earn a good living and achieve higher physical and mental standards. Labor movements are induced by offers of better living conditions and we can do a great deal to develop from theory into reality the things which make for desirable social environment, intellectual advancement and material well being in the South because we are blessed with the means and the abilities for using them to these ends. The dawn of this new era waits upon nothing more essential than a consistent attitude of mind.

FEDERAL STIMULUS OF SETTLEMENT SLOW.

I have read with much pleasure and profit the printed addresses delivered last November before the Southern Land Congress by Messrs. H. T. Cory and Elwood Mead, Consulting Engineers of the United States Reclamation Service, Department of the Interior. These men have, in a most able manner, illuminated the existing situation with reference to reclamation of waste lands in general and the quickened realization on the part of our Government officials for the urgent necessity of Federal and State aid to provide rural homes for the returning soldiers and sailors, and also for others of our citizenship, to the end that the world may be supplied with more food and other necessities for comfortable living. Under our political system the practical reclamation of waste lands and their disposal to colonists or other settlers must of necessity be slow. It cannot escape the pressure of conflicting self-interest by communities and persons in its projects and policies. Direct Federal control will likely be first extended to the more favorable soils and where opportunities are more inviting than the generality of cut-over lands afford.

Mr. Cory in his careful treatment of the colonization idea (pages 10-11) affords a clear perspective of its possibilities—and they are only suggestions, not realities, nor even settled purposes so far as Uncle Sam is concerned. His expressed hope, if realized, that even one million acres may be selected—a mere freckle on the face of the total available area—does not go to the root of the situation which confronts the owners of cut-over land, nor would it satisfy the communities which are so generally affected thereby. The hope is a vague one and without precedent, and by the utmost stretching of my credulity I cannot picture to myself floods of returning sailors and soldiers eager to assume the self-denial and practical fortitude involved in the processes of wrenching prosperity from the generality of cut-over lands, and paying therefor with improvements "eighty to one hundred dollars an acre", or even half that sum, because better lands in more desirable surroundings can yet be had in abundance at

lower prices. The soldiers and sailors will soon have been demobilized and returned to their former homes and vocations, and long before such colonization projects can possibly get under way with Federal, State or other public co-operation.

Granting that all obstacles will be surmounted and that such colonies will actually be established, many years must elapse before the success of such an enterprise on cut-over lands can be demonstrated. Meanwhile, according to Mr. Moore (page 2 of his printed address), the total area of cut-over lands is being added to at the rate of fifteen million acres yearly. Is it not clear that a more immediate and definite measure must be applied to offset even these daily increments? But, let us not fail to take advantage of these immigration and colonization forces for they are good and desirable, though not sufficient unto our needs.

STATE AID AND PRIVATE OWNERSHIP.

Federal and State governments have gone far towards the establishment of the principle that it is not only a proper function of governments to lend their aid to rural pursuits and the development of natural resources, but that it is a very wise and necessary policy which will, in future, receive increasing consideration by our lawmakers because it is peculiarly responsive to popular opinion and human necessities.

The rapid expansion of such programs may be anticipated with certainty and that the benefits will justify such a course is beyond doubt, but in the very nature of things the exact form and direction of such aids and their practical administrative application will also increasingly bring to the fore such inevitable struggles for preferment between localities and personal interests as are common to every opportunity where advantages at the "public crib" are concerned. Every state and every congressional district will be on hand with its chosen representatives and its organized lobbies as special pleaders for "pie" and **more pie**, and it is a logical assumption that the funds for all such projects will be distributed pretty generally in the proportion of political repre-

sentation and for the ratable benefit of localities by which such funds are contributed through forms of taxation. This, it seems to me, must be the eventual outcome, at least in so far as Federal assistance may go, and similar logic seems not entirely inapplicable to State aid.

In the circumstances, the position of private owners of cut-over land among lumbermen who are classed as prosperous or well-to-do may present difficulties in so far as it affords peculiar opportunities for attack by self-seeking moulders of public opinion who care more for votes than for equity. It cannot be refuted that the generality of such lands were at one time a part of the public domain from whence they were segregated to private ownership by speculators and others for private gain with little regard for community welfare. All this at the time was a logical and inevitable procedure encouraged by the immediate and prospective needs for lumber in other places, but with little consideration for the local consequences which followed and are now pressing for remedial action. It can hardly be said that private ownership destroys all public claim upon or interest in the utilization of this property and I am sure that a majority of the owners harbor no such narrow sentiments in relation thereto; on the contrary, they possess a superior sense of public obligation which each desires to liquidate in full measure at the earliest moment after the right manner of doing so has been determined.

A STITCH IN TIME SAVES NINE.

There is always great advantage in taking and holding the initiative and it will prove to have been the part of great wisdom to avoid unfavorable situations by anticipating them with methods of our own choosing and which can easily be devised to enlist the favorable support of public opinion by making visible and actual progress in the processes of restoring cut-over lands to useful production. The demand for public improvements and support of our administrative systems demand the taxation of property and business and since the valuable timber from our cut-over lands has gone beyond the reach of the local tax collector,

the land which remains must, and should, bear its fair share of the tax burden. There is no equitable reason—from a community standpoint—why it should not do so and when properly used it can well afford to pay such taxes. The use of the land is up to the owner and not the assessor. If one can afford to pay taxes on idle property, it may be his legal privilege, but it is wastefully wrong nevertheless, and in some measure excuses public interference by discrimination in methods of taxation or otherwise. There is a growing school of political thought which holds that idle lands should be so heavily taxed that they must be used or ultimately revert by default to the state.

This is not the place to expand doctrines, but it can do no harm to remind ourselves occasionally that forces of unrest all over the world are becoming daily more active, more discriminating in matters affecting the social welfare, and more insistent upon "the square deal" as viewed from the angle of those who struggle on from year to year for the mere necessities of life, such as food and apparel. Numerically these elements represent the big majority and through forms of local, district, state, Federal and international organization are voicing their demands with logic and persistence which it is unwise to leave out of our program or policies in dealing with the cut-over land situation and its potential value, and therefore concerns the man in the street, who needs only to be made aware of his right or advantage therein to bring great pressure upon the powers that be to take action whereby he may be benefited regardless of its violence and the so-called legal or vested rights of the title holders.

We need but follow the doctrines so widely imposed upon our social and business structures in recent years and the still more radical utterances coming from powerful sources through the literature of our time to appreciate the timeliness of a warning that we must do some things different, whether we want to do so or not. In a recent symposium of international expressions involving the rights of all who labor, "the problem of feeding and clothing the world" whenever or wherever the old order of things breaks down as it has in Russia was made the

keynote underlying all other objects and is proclaimed to be the foremost "right of man" to which all other considerations must yield obedience. It is, therefore, the part of wisdom in our situation to be mindful of the dangers in our pathway and leave to chance nothing which foresight may help us to minimize or avoid.

It requires no great powers of imagination to appreciate the dangers with which the situation is pregnant, nor the persuasive elements of moral justice underlying this tendency in the development of socialistic ideals. In the light of such considerations, which I hesitate to expound with greater elaboration, may it not prove unfortunate to exploit public attention with reference to cut-over lands unless the owners concurrently demonstrate their capacity and desire to satisfy the demands of the public welfare therein by putting them to definite and immediate use?

THE SMALL FARM.

As an economic entity the "small farm" occupies a similar status to that of other smallish enterprises. It cannot compete because its costs are too high. The small farm is at a disadvantage in matters of buying, selling, production and transportation, when carried on as a competitive business. It is true, however, that by the application of hard work and strict economy the small farm affords a degree of independence and the means of livelihood which has ever appealed to certain people. Its drawbacks, nevertheless, are so many that such communities are constantly losing population to our cities and industrial centers in the pursuit of better living conditions. We must not omit these teachings of history from our program and purposes. Obviously this human tide will not be reversed and ebb countrywards from our cities until better living conditions, as the term is interpreted by the masses, are found there. The longer hours of labor and all the other draw-backs which must be endured by those who remain permanently on small farms present undesirable conditions to our present day city folks.

I know of no industry which now presents a better field for investment of capital and the exercise of executive ability than farming as a business and it is an open question whether the "small farm", as we call it, may not cease to be an attractive vocation when confronted by such improved methods. Food production and its distribution are the two greatest enterprises in the world; and its production is by far the greater of the two. Should it not, therefore, be given first place in our calculations.

ORGANIZED AGRICULTURE— NOT TENANCY.

One by one, with changing circumstances, the small shops and small crafts have had to give way to the greater forces of specialization and great organizations, and there is no logic in presuming that agriculture will continue untouched by or unresponsive to the economic laws which have caused such changes in other lines. The great industrial organizations with all their faults and earlier crudities have neither enslaved, impoverished nor debased the masses. On the contrary, and within one generation these organizations have so greatly improved the living conditions of the masses that the plain working man of today enjoys education, comforts, pleasures and a degree of independence which fifty years ago were beyond the reach of the well-to-do. The power of centralized capital and energy must prevail where older but unsound ideals cease to be expedient. Great agricultural organizations are equally desirable and may become as necessary as in other industries before we shall provide the superior rural living conditions which could attract labor from city to country.

It will not be a form of landlordism and tenantry; that relic of feudalism is dead beyond revival. As we live and learn, we see clearly that labor is achieving its own independence and dictating its own terms, and aside from the inevitable breaking of eggs for this omelet a backward look to our situation—as it was ten, twenty or thirty years ago—cannot fail to convince the least thoughtful among us that in spite of the friction incidental to the astonishing

changes through which we have come, the world is better off because the masses are better off.

Organized industry when efficiently conducted not only provides opportunity for remunerative employment under desirable living conditions, but it also provides safe and well managed investments for the person of small means. The preferred securities which supply capital for our great enterprises are largely absorbed by the savings of the working men and women, either directly through their savings banks. This is altogether a desirable situation and points to greater social stability, when a majority of the wage earners shall have acquired a substantial interest in something and a corresponding control over the sources of their employment; how superior to the false ideal of the small farms and crafts where drudgery must prevail to sustain a mere existence which some of us still call "the good old days".

I am interested in a Michigan agricultural industry known as "Simpson Acres". It is a very profitable enterprise consisting of several highly improved farms utilized for stock, swine, poultry, and draft animals, and supplemented by a general store, blacksmith shop, cannery, dairy and meat market, and will soon have its own little bank for the convenience of its workmen and patrons. This enterprise is conducted by an experienced manager. Labor is paid going wages for conventional hours and the living conditions are attractive, hence there is no labor shortage. We are providing cottages on small tracts which may be owned or rented by those employed about the business, and are thus not only meeting the main objections to rural living but are providing superior allurements for people from the towns. Families who could not maintain themselves for lack of capital and experience in small business ventures or on small farms may here under organized capital and skillful direction enjoy all the desirable features of outdoor life with the least discomfort or risk. No capital is needed to set up a home like that, and in time many of the employees may become part owners of the enterprise, because it affords an opportunity for safe investment at maximum returns.

During the past fiscal year, Simpson Acres earned enough from its store alone to pay 6% upon the whole investment. Forty acres in grapes cleared another 3%. And these are merely incidents. Simpson Acres buys at wholesale and sells at retail to a great extent. It does things in a big way not open to the small farmer. It is a producer and merchant combined, and does business in the best way for all concerned. I sometimes call it "Happy Acres", because it cures the grouch. It is a real "home maintenance unit".

ADAPTABILITY OF CUT-OVER PINE LANDS.

Encouraging signs, striking at the root of the situation, were particularly illuminated at the New Orleans meeting in 1917 by Mr. F. B. Enochs, Fernwood, Miss., and Mr. J. Lewis Thompson, Houston, Texas, as reported in the "Dawn of a New Constructive Era". From the sum of knowledge contributed by some thirty-eminent speakers there, nothing so graphically displayed the results of self-reliant action as the testimony of these two men who emphasized the importance of a proper "mental attitude" as a practical factor in our problems.

While it must be conceded that certain limited areas of cut-over land have been cleared and brought under cultivation with profit to the owner, the preponderance of testimony which such attempts have produced clearly proves that success is the exception and not the rule, and upon analysis of the failures we perceive that the scarcity of farm labor, high cost of indispensable fertilizer, remote markets, and similar basic conditions were the responsible factors, and until these unfavorable conditions have been greatly changed for the better other methods involving lesser hazards must be adopted and carried out.

Almost every section contains at least a few acres that may be advantageously cleared for raising garden truck and justify the keeping of poultry, pigs and a milch cow or two, and thereby contribute much towards the comforts of family life, but these little home units are only justified where and when other remunerative employment

may be had. The importance of such "home units" is not generally appreciated and they do not receive the consideration from the big land owners which they merit. The character of the houses and other conveniences are as a rule extremely uninviting, and ill suited to encourage permanent occupation or that degree of contentment which encourages the birth rate among their occupants.

Except in the cities and industrial towns throughout the great cut-over land areas in the South the birth rate and immigration may not keep pace with the losses in population, unless those who are here in the capacity of proprietors take some action to exploit their lands in a more logical manner and thus create the opportunities which justify the processes of increasing the population. This task will prove less arduous than may at first appear to be the case because it parallels the self-interest of all other enterprises in the territory and therefore will meet with willing and hearty co-operation.

NEGROES AN ASSET TO THE SOUTH.

We already have a colored population which under progressive encouragements would respond to our needs and prove itself desirable because of the greater birth rate among people of color and their fitness to perform manual labor under the prevailing climatic and social conditions in the South. I feel very confident that the raising of more and better negroes in the South is as much to be desired as the raising of good animals.

THE ANIMAL INDUSTRIES.

In support of the logic presented in the preceding pages and what I shall have to say under this caption, the reader is referred to the statements made by Mr. Moore under the title "Colonization Inadequate to Place the Vast, Idle Acreage into Prompt Use", page 3 of his printed address before the Southern Land Congress, November, 1918. There, without ambiguity, we are told, in substance, that the usual farm colonization efforts are inadequate and will not solve the South's and our problem; the lumbermen for whom he was speaking

had met in 1917 at New Orleans, and whose directors had previously assembled in Chicago, had reached the conclusion "that despite all individual and collective efforts made in the past their problem was accentuated"; and we are told that after three days devoted to a consideration of the question "of the best immediate future use to which cut-over lands should be put" the conference evolved an opinion that the "South" should "continue by the process of evolution following in the footsteps of more developed sections of the country which went through a period of livestock raising on the open range before intensive farming ensued".

PASSING THE BUCK.

My sympathies go out to friend Moore over the struggle it must have cost him to announce the opinion thus evolved by the directors. His usual flow of good English is wanting. "Immediate future use" is somewhat of a paradox and that our "lumbermen are not agriculturists" is an invalid alibi. The determination to seek advice from officials of Federal and State governments is to be commended only in so far as all helpful information on any subject is desirable, but it was not made clear what constructive knowledge or assistance the State and Federal officials might render in the situation, unless to facilitate the "passing of the buck" and thereby relieve the present owners of the land its burdensome taxes and other problems which a use of such lands entails.

Throughout the printed addresses is manifested a purpose or desire to shift the burdens and responsibilities for the useful treatment of the land from its owners to other shoulders. If it could be done, it would be the easy way out, and I would have no occasion to intrude my divergent views. It is admitted that past efforts to get out from under have resulted in disappointment, and unless the advice obtained from Government officials shall overturn the causes which underlie the present adverse status of the situation the result will remain much as it is, while Father Time proceeds to garner us one by one into that mysterious land where each must choose his chamber in the silent halls of death.

What I am contending for is, that until other methods become available, and as a logical aid to their earlier realization, the grazing of cut-over range must be inaugurated and developed by the present owners of the land. It is so self-evident as to require no argument here, that all other forces which may help in working out an adequate solution of the problem should be courted, but until tangible results are shown enthusiasm will cool off. It requires substantial progress to keep up the spirit of the game. Advice is cheap, but when it falls down in practice it may prove expensive.

This cold feet attitude of the landowners must change before all these combined forces will insure a victory of proud and profitable proportions; it is impossible to conjure a rainbow of hope from anything less tangible in this situation. A determination "to follow in the footsteps of more developed sections of the country which first went through a period of livestock raising on the open range before intensive farming ensued", is most wise in principle and in our case seems lacking only a determination to practice the principle. When the underlying advantages "of more developed sections of the country" are analyzed, we are made painfully aware of the fact that such sections presented opportunities and attractions which are not present in our cut-over land. Such developments have passed us by and will not voluntarily intrude themselves on our domain. Is it not self-evidence that a policy of "watchful waiting" cannot solve our problems unless we do some real hustling while we wait?

ANIMAL RAISING VERSUS LUMBERING.

The raising of domestic animals is a bigger and less hazardous business than lumbering. It is more attractive and genteel in every way, and has a permanency in the affairs of men upon which the careers of generations may be fore-ordained with safety, pleasure and profit. It is a big business for big men, to be conducted in a big way, and it is not equally feasible for lesser men of smaller means.

The essential requisites are an abundance of permanent range and water, supplemented

by a favorable climate. These ideal conditions are more generously combined in the territory of our Southern cut-over lands than elsewhere on this continent, and a ready cash market for the products in any quantity is equally well assured. Is anything more needed to justify my reiterated pleading for a change of mental attitude? I believe not, and if mistaken in this surmise must I not also revise my opinion regarding the business sagacity of those who own this virgin empire of great opportunities.

Instead of lying awake nights to think of means whereby this El Dorado of promise may be given over to others, it deserves to be regarded in the light of a fortunate possession, because in a few years it can be turned into sources of profit that cannot fail to support its owners and their descendants in luxury indefinitely. Where else and by what other means may we find another prospect so inviting. The promise of these great ranches possess allurements for me that are irresistible and it will always remain a source of regret that I was not blessed with the "burden" of owning fifty thousand acres of cut-over land.

If it were true that the land could not be profitably employed by its owners either individually or collectively with all the advantages of money, business training, and other resources at their command, this in itself would present a deterrent spectacle of risk and hazard to the soldiers, sailors and other persons who are less favored by training, aptitude and capital. It is a fact that the land is incapable of a fair return when put to consistent uses, but it does preclude intensive agriculture from consideration, without first using them for grazing purposes.

not

ADVICE VERSUS INDIVIDUAL ACTION.

The knowledge of this condition, it seems to me, will operate with equal persuasion in retarding future development in severality as it has in bygone days, and it must be apparent that no advice which can be obtained from public officials can, in any way, change this situation except by fostering misleading expectations, or exploiting their interest as an endorsement of worth and productivity which the land

cannot redeem. No real progress could result from such methods; on the contrary, when the returns are in, the situation will have been prejudiced and made more difficult to deal with than it now is, and a hurtful public sentiment might be aroused thereby. I would deem myself unworthy of the friendship I claim of lumbermen did I hesitate to express myself most frankly upon these, to me, seemingly vital considerations. It is so much easier to echo the sounds most pleasing to the ear, even though it proves to be a mistaken kindness in the end. Therefore, at the risk of forfeiting applause from the left, my convictions remain firm that events will vindicate my course.

Covering the land with flocks and herds will of itself attract widespread attention among thoughtful and desirable people. It is good advertising and will greatly hasten the day of opportunity to dispose of lands in large and small tracts, because it establishes their desirability as nothing else can do so well. When that happens the owner will be much less anxious to part with his land, for the advantages will be more in his favor. While a thing is a "drug" on the market, the seller is always at a disadvantage and the thing is worth only what it will bring when a buyer has been found. Grazing in any form as to the animal chosen, tends to build up land by improving the kinds and quantity of grasses produced from year to year. It also makes easier the ultimate clearing of stumps from the land, and by reducing the prevalence of destructive fires encourages reforestation. Land subjected to grazing for several seasons will generally provide sustenance for two animals, where but one could thrive in the beginning. It is this process of reciprocal stimulation which provides the necessary humus at an ever increasing ratio. It is by this process of more animals, more grass; more grass, more animals, that even very poor soil becomes enriched and suitable for intensive tillage.

The conduct of livestock industries will inevitably bring in people who will settle on the same land without being made wholly dependent upon its returns for a livelihood. This is a logical and altogether a desirable procedure,

and insures the availability of needed labor. Forage crops for wintering stock are a necessity and will further encourage settlement of smaller tracts, and thus these independent forces supplement one another to build up communities on a stable and lasting basis.

WHAT ANIMAL?

Horses, mules, donkeys, cattle, swine, goats, sheep, and poultry; all are commendable and may be profitably raised in the South with proper care and management. All should be bred to the extent of local demands or in response to this or that particular requirement, and in some localities dairy or beef cattle can be raised to good purpose for the outside markets. The same will be found true of some draft animals in excess of local needs. Swine and poultry are exceedingly desirable about every rural home, but have their limits in our present condition of rural backwardness, inexperience and disinclination of provide such stock with the care it should receive, and therefore diversified animal husbandry would result in disappointment as a means for using the range afforded by cut-over lands.

The dairy herd for profit requires a practical knowledge of and a liking for the business. It is a tedious process to build up a good dairy herd and its proper care calls for stables, silos and quite an array of other costly utensils and equipment. There must also be provided suitable supplies of grain, ensilage and other crops to supplement the range grasses which by themselves are not adequate to the needs of dairy or beef cattle. Generally speaking, the cattle business develops slowly. The annual turnover is relatively small. It calls for a disproportionate investment in permanent improvements for which capital is lacking and which would represent a fixed charge eventually to be absorbed by the returns. The "tick" also demands consideration and imposes burdensome handicaps where cattle are concerned. The "tick" will long continue to demand a degree of vigilance and warfare even where cattle prevail in small numbers, and would be exceedingly difficult to deal with where millions of range cattle are involved.

I have thus presented quite an array of things in a more or less unfavorable aspect, which is quite foreign to my inclinations and preferences, because my normal impulses are optimistic. I experience delight in boosting things, and the necessity for depreciating any enterprise requires a real effort on my part, but this cut-over land problem is of such magnitude, embraces the future welfare of so many people, and presents so many perplexing angles that I feel it a duty to express my convictions without reserve. Anything less than candor would only result in harm to those whose interests I have at heart.

THE ANSWER: SHEEP.

Happily, in this woolly little friend of the human family the world over, we find every attribute for a complete solution of the problem. There is no other domestic "critter" so well suited to the purpose in mind, unless it be a good goat. All others are outclassed by a wide margin and there are substantial reasons for giving sheep the preference over goats on the generality of cut-over land.

Mutton, wool, tallow, pelts and bone are conspicuous among the human necessities which the whole world wants, and the time has passed never to return when an over-supply of these commodities will be experienced. Wool, in all history, has met no successful rival in providing the most ideal clothing and other comforts deemed well-nigh indispensable. Wool grease (degras) is an item of conspicuous importance in many of our industries, for which substitutes are rare and costly. I need not dwell upon the food value of mutton in this age of meat scarcity, which, with coming years, will be further accentuated—except to remind the reader of its pronounced superiority in values over all other kinds of meat, save pork. Even in this comparison good mutton sustains its well deserved equality. Mutton tallow also possesses superior qualities for many uses as food and in the arts. The value of sheepskin in the manufacture of wearing apparel, book-binding, upholstering and for a great variety of other useful purposes, is growing in favor day by day. Bone and other offal have their

uses in important particulars, so that almost nothing from a sheep is waste produced; even the hoofs are worked up into buttons and glue. In some parts of the world, sheep's milk is used for human food, and is said to be exceedingly palatable. I must say, however, that I do not fancy the taste of it.

The sheep, barring Mr. Ram, is a companionable, docile and tractable animal; a good rustler and comparatively immune from decimating infections or other devastating diseases. In these respects, under sensible care, sheep present fewer drawbacks by far than either swine or cattle. They are more prolific than most other domestic animals, excepting swine or poultry, and come to early maturity. Their progeny when conserved may in a few years populate all our cut-over land if given a fair start. Sheep bring in a money return thrice annually, from wool, lambs and mutton. They are continual producers in one form or another, and the increase reaches a tangible market value within four months of its birth.

A flock of healthy sheep is almost like money in the bank. They represent liquid assets to a greater degree than most other animals because the buildings and other improvements needed are simple and inexpensive. In the Southern States sheep require no housing at any season, but should be provided with shade during hot weather. Bearing ewes should be provided with supplementary rations during the winter months to insure strong lambs. Sheep require less feeding than cattle and are capable of more completely sustaining themselves in good to fair condition on cut-over range grasses than any other animal, excepting goats.

Other desirable results that follow the grazing of sheep on such land, due to their habit of close nipping and their ruminating nature, are the minimizing of fires, which annually destroy the meager humus and inflict other costly damages which cannot otherwise be so easily overcome, and the rapid change from bunch and wire grass to more prolific and nutritious varieties which invariably takes place on native soils when closely grazed by sheep, performs the most important function of all in the process

of soil building, which is so admittedly indispensable before cut-over pine land may be classed as desirable or suitable for the more intensive agricultural pursuits. This fact alone places the sheep in the front rank as a pioneer to provide the beginning of a new era for the South; the rib-work to which may be fastened a healthy, growing, virile, social structure of enduring qualities and in numbers sufficient to give every acre of available land a value which, in the present situation, would seem fabulous or unthinkable.

WOOL PRODUCTION IN THE SOUTH.

Because animals are given heavier fleeces for their protection in the colder regions of the north does not mean that wool growing in the south must be less profitable. Such is not the case; on the contrary, the South presents some very distinct advantages for sheep raising over its northern neighbor.

The heavier fleeces of the colder north are matters of gradual evolution, requiring more than one season for their full development. That is to say, when sheep which were bred in warmer climates are transferred to colder environments, their fleeces will not forthwith take on increased weight, but several seasons, and sometimes the effect of climate on breeding, are required to work the changes in these respects; and the reverse is true of northern bred animals when transferred to warmer climes. Northern bred sheep in some particulars are more vigorous and survive a change to warmer climes better than southern sheep would stand a sudden change to the colder and longer winters of the north.

In the northern states, such as Minnesota, for instance, the average grazing season on the range is about five and a half months and it costs from \$3.00 to \$5.00 a head there for feed to carry sheep through the fall, winter and spring; expensive equipment is required for protection against the elements; their food must be stored in barns, silos or granaries; and the feeding itself requires no small amount of labor.

In these respects the south presents very distinct advantages; the grazing season is

several months longer and the feeding season correspondingly shorter; less capital is required for buildings and feed; the lambing season is six weeks earlier; and fewer losses occur from adverse weather conditions. Southern lambs when properly cared for are ready for the earlier markets, when prices usually range several cents a pound higher; this alone makes up for any incidental differences in weight of the fleeces.

Even during the months when the feeding of flocks in the south is necessary, they require lighter rations than must be given in colder climates where the animal must have more food as fuel to resist the cold. It should be remembered, too, that the food required for heat does not produce either wool or mutton.

It is good practice to cross southern bred ewes with northern bred rams, and the gradual influx of northern ewes is equally desirable. In this way southern fleeces may be obtained which show up in weight pretty close to those raised in colder climes. At the most the difference in weight is seldom as much as two pounds per fleece, and even at this rate, with the price of wool at fifty cents in primary markets, the southern grower saves double that sum from his lower cost of wintering; while the higher prices for lambs in the early markets give him another advantage, so that when all the ins and outs are set side by side it will be found that wool and mutton may be raised on cut-over land to compete very successfully with that from any other section of our country.

THE SHEEP KILLING DOG REDIVIVUS.

I almost forgot to make mention of the sheep-killing dog, not that it greatly matters, for he is more or less of a scarecrow, and a much maligned creature. The sheep-killing dog has been made to bear the sins committed by his two-legged brethren who inhabit the waste places thereabouts and whose means of subsistence are made easier by the proximity of mutton. For the running of sheep in large flocks, good dogs, such as collies and airedales, raised with the sheep and trained to afford them security, are necessary adjuncts of the business,

along with experienced herders. Such supervision is a necessity for other reasons and will amply suffice to stamp out the dog menace, with or without legislative enactments.

DETERMINATION OF ACREAGE AND BREEDS.

Experience alone can determine how many sheep any given area will support. The land varies in grazing value to such an extent that no general rule can be given, but it can be safely assumed that the areas grazed over will be thereby improved from year to year and provide sustenance for increasing numbers. I would say in a general way that the less desirable lands may from the start support one sheep to three acres, and ultimately a sheep to every acre. Other land will do better, and some perhaps not so well. In the nature of the case, overcrowding is not an immediate danger, and there must be room for the normal growth of the flocks, which, under intelligent management, is rapid. An average of a lamb a year per ewe is well within the limit of modest expectations. A lesser average would be evidence of incapacity or other preventable causes. An average gain of a lamb and a half per ewe is excellent and insures very profitable returns, but it is possible to achieve even higher averages by selective breeding from twin mothers and fathers, and skillful management.

What breed or kind of sheep to select, suggests material enough to fill volumes, but for the purpose of this article "what you can get" is a sufficient answer. Range sheep must be very carefully selected with regard to age and health, by experienced buyers, and from the best wool and mutton producing stocks to be found. It is well to start right in these respects and with particular assurance of securing none but healthy animals. All other desirable qualities may be rapidly developed by selective breeding and generally by introducing judiciously selected rams.

The South, in a way, is a lazy man's country and this native trait fits into the sheep grazing business with peculiar nicety, while it holds

the menace of disaster over such enterprise as farming and land clearing operations. This is also one of those conditions the remedy for which, if one exists will be slow in effecting a cure. Hence, it must be taken into account in our search for the best solution of the cut-over problem.

ATTRACTIVE RETURNS ON INVESTMENT.

On the basis of one lamb per ewe, with the sexes equally divided, one thousand ewes would produce the first year one thousand fleeces and five hundred lambs for the market, and raise the flock to fifteen hundred, and during the fourth year, at the same rate (no improvements anticipated) we have for market three thousand three hundred and seventy-five fleeces, sixteen hundred and eighty lambs, and a flock numbering five thousand ewes. At this point it is best to turn out the old ewes, or earlier unless they were acquired young. Can't you see waves of wool where now is nothing but sad, sordid, scorching waste?

The human equation enters so largely into the degree of success which may be wrung from any enterprise that for the purpose of this article I deemed it prudent to confine my figures to normal averages. Some persons would, of course, do better and others worse, for such is the law of human endeavor in all undertakings. The annual wool clip from Southern bred animals is somewhat less than from northern sheep, but it costs so much less to winter them here that it leaves a balance in favor of the South.

WHEN, WHERE AND HOW TO OBTAIN SHEEP.

Perhaps, if we are real good boys, Santa Claus will bring us a Bo-peep for Christmas, but, seriously, as Sherman said in '78, "the way to resume, is to resume"; likewise, the way to obtain sheep is to get them, which in our situation, means to go after them where they are and while the getting is possible, for be it remembered that there is much cut-over and other land in other localities crying for development with an eye to sheep. Minnesota, Wisconsin and Michigan have awakened to the

needs of the situation presented by their poorer cut-over lands, of which vast areas remain idle for causes very similar to those now confronting us of the South, and these states, with their accustomed hustle, will be found competing for sheep with increasing activity as time goes on. Shall we evolute by sitting idle until their wants have been supplied, or will we start the tide in our direction and keep it coming before the process is made more difficult or improbable.

Some time ago, in Michigan, the West Michigan Improvement Association, co-operating with other forces, created a promising movement of sheep from the West towards the cut-over lands in that State, but it struck a snag when the landowners gave the leasing and land values a skyward tilt which in some instances amounted to 1000%. This danger cannot be altogether avoided where the desires and necessities of diverse land ownerships prevail, but it can be minimized. The Cut-Over Land Department could, for example, be empowered to do the buying under the personal direction of some qualified head assisted by men in the field who understand the business. I do not have in mind theoretical professors, but practical men to whom the smell of wool is like unto perfume; men whose sheep sense has been acquired by hard knocks. Such men are available, and like all well chosen help earn their own cost with a profit for the employer. Such men are an investment, not an expense.

Two thousand sheep under a single ownership afford a fair unit to begin with. Smaller flocks for ranging are not so desirable, but may nevertheless be profitably developed. The Western range lands are disintegrating and doubtless some sheepmen there could be persuaded to move South with their flocks, if permanent range at low cost be assured for a sufficiently long period, but as a rule the sheep owner shies off from the prospect of a "raise before the draw" where private ownership of land prevails. With these handicaps in mind and their consequences duly appreciated, I have no doubt that methods of meeting the difficulties involved may be worked out.

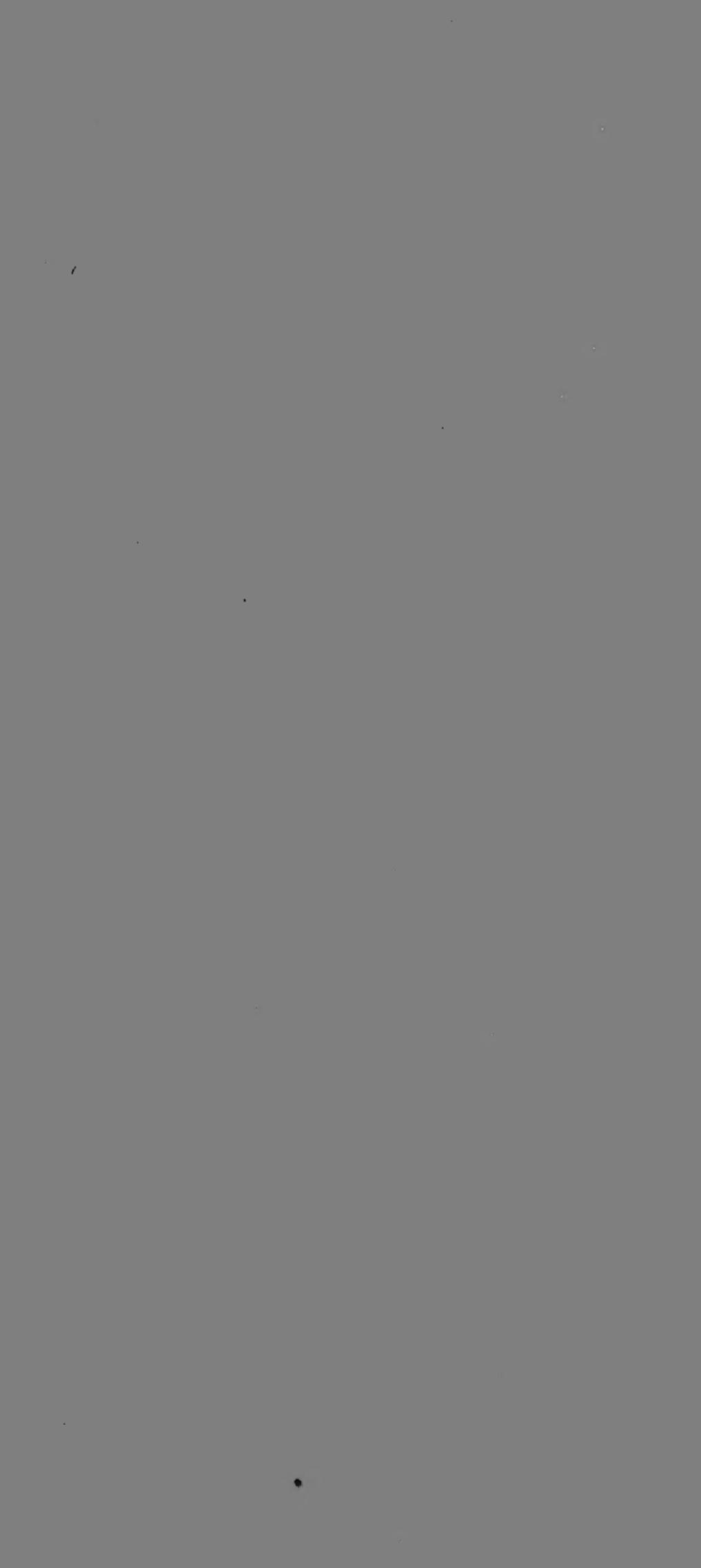
If, as suggested, a sheep department of the Association be created, the individual members

who desire to stock sheep could formulate requisitions covering their requirements and file same with the department to be filled first come, first served, or on some basis of pro rata allotment. If we assume fifteen million to be the annual acreage rate by which the cut-over land areas are expanding and that a sheep per three acres is good practice, we find that it requires the introduction of five million sheep a year to establish an equilibrium and that we must remain dependent upon the normal rate of increase, or a more ambitious beginning, to supply the needs of the other millions upon millions of acres which we have already accumulated; and in this particular let us not lose sight of the greater density of sheep population to be supported by the process of improving the range.

Long ago the State of Florida held third or fourth place as a sheep grower. There is no valid reason why the entire South for a generation hence may not enjoy the distinction of producing more sheep than any other part of the world of equal area. The annual returns from salable sheep products, not taking into account the benefits to the soil, etc., of one hundred million sheep (this number is only half of what we can raise) presents an income which makes the returns from the cotton crop piled on top of the returns from the lumber business look like a piker. Such a flow of wealth from lands now idle, when set in motion cannot fail to boom public improvements and afford other attractions which must result in collateral developments beyond our ken to realize. It could not fail to multiply our sparse population several times. I am utterly unable to see how such possibilities when they are more fully appreciated can fail to change that attitude of mind which, until now, has been feeding on the hope that the cut-over land, the foundation of all this, is an undesirable possession and to be gotten rid of—even if it were easily possible to dispose of it in the present circumstances, which, fortunately or unfortunately, is not the case. I would look upon it as a mistake rather than good fortune.

CONCLUSION.

If my remarks have made no impression upon the readers, or have failed thus far to inspire them with the necessity for a changed attitude of mind towards the great problem of "what to do with our cut-over land" and how to go about it, then I fear that anything which I might add to this article would be equally without purpose and would serve only to further tire the patience of my good friends, if it did not also exasperate. I shall, therefore, make my adieu with the promise that nothing would bring me greater pleasure than to feel that I may, in some manner, be of future service in aiding this great work of converting an empire of devastated areas into prosperous ranches and homes.



LIBRARY OF CONGRESS



0 003 154 471 3

